INTRODUCTION

Within the past decade acquired immune deficiency syndrome (AIDS) has leaped from obscurity to a point where, if left unabated, it could become one of the significant public health problems of this century (1). The absence of a cure and effective medical treatment makes prevention, the result of knowledge and subsequent behavior modification, the only real defense presently available to combat this deadly disease. As a result, recent federal efforts aimed at AIDS prevention have placed a heavy emphasis on health education as a first step in that direction. (2)

Efforts to improve the public's understanding on AIDS must begin with an assessment of current knowledge and prevailing attitudes so that future awareness programs can more effectively target information needs. To date most published findings on knowledge and attitudes about AIDS have come from studies of homosexual men (3-5), adolescents (6,7), and health care workers (8,9). The only known published assessment of knowledge and attitudes about AIDS among members of the general population was done in a multi-survey study using nonrandom samples chosen in San Francisco, New York and London (10). However, preliminary findings on a series of AIDS knowledge questions recently added by the National Center for Health Statistics to the National Health Interview Survey have been reported (11). The Centers for Disease Control has also added a series of AIDS-related questions to surveys in eight states participating in the Behavioral Risk Factor Surveillance System (12).

This paper presents findings from a study designed to better understand the level and predictors of knowledge among adults in North Carolina, based on a scientifically chosen random sample of that population.

METHODS

A telephone survey averaging 10 minutes in length was completed by 600 randomly chosen non-institutionalized adult residents (18 years and older) of North Carolina between March 15 and April 4, 1987. Interviews were conducted by students who had been specially trained as part of a graduate-level course in survey research methods.

Each sample household, from which one eligible adult was picked at random, was selected following a stratified version of the two-stage random digit sampling design described by Waksberg (13). Eight sampling strata were formed by the cross-classification of state regions (Western, North Central, South Central, and Eastern) and the county-level relative density of blacks within region (high and low) so that households in areas with higher concentrations of blacks could be oversampled. Assuming that 66 percent of "no answers" are eligible households, the percentages of all eligibles who responded is estimated to have been 63 percent and who refused 15 percent (14).

All reported findings of our analysis of the data from this survey reflect the complexity of the sampling design. The two programs we used, SESUDAAN to estimate the frequency distributions of categorical response variables and RTILOGIT to estimate coefficients of assumed logistic regression models, produce weighted estimates and utilize the Taylor linearization approach to generate associated standard errors. (15-16) Data from the survey were weighted to reflect differential sampling probabilities and to compensate for various common deficiencies dealt with in survey practice.

The interview in this survey covered a wide range of issues related to knowledge and attitudes about AIDS. Each question is defined and categorized in the appendix. The sequence of questions does not correspond to the precise order in which they were asked in the survey interview. Except where otherwise indicated, response categories for questions were "yes," "no," and "don't know." For regression analysis, most knowledge variables were recoded to assume the value "1" if the answer was correct according to prevailing evidence, and "0" if otherwise. Likewise, a "yes" response to the opinion questions used in these analysis was set to "1" and any other response to "0."

Nonresponse was minimal for the individual items used in our analysis. Except for the variables, CONDOM and FEWMATES with three and four item nonresponses respectively, the knowledge items had no more than one of the 600 respondents with missing data. Most of the attitude variables, which were asked toward the end of the interview, had four item nonresponses, all due to partial interviews. All but one of the respondent characteristics (except GRADE with nine) had fewer than five item nonresponses.